1. (Currently amended) A method for identifying a compound that modulates signal transduction in taste cells, the method comprising the steps of:

(i) contacting a cell which expresses a taste cell specific G-protein alpha subunit polypeptide and a taste cell specific G protein coupled receptor with the compound, the G-protein alpha subunit polypeptide comprising greater than ~~70%~~ 90% amino acid sequence identity to a polypeptide having a sequence of SEQ ID NO:2; wherein the G-protein alpha subunit polypeptide is a subunit of a heterotrimeric G-protein which binds GTP; and

(ii) determining a functional effect of the compound upon the cell expressing the taste cell specific G-protein alpha subunit polypeptide and the taste cell specific G protein coupled receptor, thereby identifying a compound that modulates signal transduction in taste cells.

2. (Canceled)

3. (Original) The method of claim 1, wherein the G-protein alpha subunit polypeptide is recombinant.

4. (Original) The method of claim 1, wherein the functional effect is a chemical effect.

5. (Canceled)

6. (Previously Amended) The method of claim 1, wherein the functional effect is determined by measuring increased or decreased binding of radiolabeled GTP to the G-protein alpha subunit polypeptide or to a G protein comprising the G-protein alpha subunit polypeptide.

7. (Original) The method of claim 1, wherein the G-protein alpha subunit polypeptide is from a mouse, a rat or a human.

8. (Original) The method of claim 1, wherein the G-protein alpha subunit polypeptide comprises an amino acid sequence of SEQ ID NO:2.

9.-24. (Canceled)